

**Must show all steps and all work to earn full credit.**

Solve the system by elimination. If the system is inconsistent or has dependent equations, say so.

$$\begin{aligned} 1) \quad & -7x + 7y = 14 \\ & 4x + 5y = 28 \end{aligned}$$

$$\begin{aligned} 2) \quad & 5x - 2y = 3 \\ & -20x + 8y = -12 \end{aligned}$$

$$\begin{aligned} 3) \quad & x + 4y = 13 \\ & 2x + 3y = 6 \end{aligned}$$

Solve the problem.

- 4) A chemist wants to mix a 22% acid solution with a 36% acid solution to get 28 L of a 26% acid solution. How many liters of the 22% solution and how many liters of the 36% solution should be mixed?
  
- 5) The Walnut Cove Ruritan Club sells hot dogs and drinks from a concession stand at the annual 4<sup>th</sup> of July parade. Carl bought 5 hot dogs and 3 drinks and paid \$13.50. Susan purchased 2 hot dogs and 3 drinks and was charged \$9.00. What is the cost of 1 hot dog and what is the cost of 1 drink?